



# City of Redmond

## Business Case Analysis

### Cost Calculations

#### Core Assumptions

#### Economic Assumptions

Years	30
Discount Rate	3%

#### Development Assumptions

	Total Parcels	Parcels with Good Soils	Acres of Parcels with Good Soils	Parcels with Good Soils and Estimated >95% lot cover	Acres of Parcels with Good Soils and estimated >95% lot cover
All Parcels	493	386	299	17	12
100% Lot Cover	292	237	147	17	12
85% Lot Cover (Overlake)	80	53	80	0	0
80% Lot Cover	39	31	34	0	0
75% Lot Cover	72	65	37	0	0
55% Lot Cover	9	0	0	0	0

Project Name [2]	Address	Infiltration?	Parcel ID	Estimated Parcel Square Feet	Value [1]
Redmond Triangle	16450 Redmond W	Yes	1225059027	44388	
Legacy Town Square	8300 160 <sup>th</sup> Ave NE	Yes	7198900240	50801	\$ 58,144,000
Ravello Apartments	Under construction	Yes	225059050		
Station House	16600 NE 79 <sup>th</sup> ST	Yes	1225059078	42766	
Old Town Apartments	16175 Cleveland S	Unknown	7792400005	38034	\$ 47,256,000
The Carter		Unknown		52272	\$ 41,000,000

[1] Pulled from King County assessors website (<http://www.kingcounty.gov/depts/assessor.aspx>)

[2] Parcels chosen based on recent, applicable, development used in analysis. Parcels without values still in construction.



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**Regional Stormwater Treatment Costs**

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Capital				
Downtown	\$ 16,907,000	\$ 11,862,205	\$ 7,958,494	\$ 6,877,467
Overlake*	6,670,000	6,580,000	5,380,000	3,470,000
O&M				
Downtown	\$ 12,071,473	\$ 9,954,555	\$ 8,316,464	\$ 7,862,838
Overlake	3,273,274	3,116,470	3,057,669	2,940,066
<b>Subtotal Cost</b>	<b>\$ 38,921,746</b>	<b>\$ 31,513,230</b>	<b>\$ 24,712,627</b>	<b>\$ 21,150,371</b>

\*Split costs of treatment (10%) and flow control (90%) costs for Overlake but include all O&M in treatment

**Regional Stormwater Flow Control and Flood Protection Costs**

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Capital				
Downtown	\$ 53,756,433	\$ 22,944,732	\$ 53,756,433	\$ 17,485,899
Overlake	60,030,000	59,220,000	48,420,000	31,230,000
<b>Subtotal Cost</b>	<b>\$ 113,786,433</b>	<b>\$ 82,164,732</b>	<b>\$ 102,176,433</b>	<b>\$ 48,715,899</b>

**Private infiltration system costs**

# of Sites	386			
Average Site Size (acres)	0.77			
	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Capital				
Construction Cost	\$ -	\$ 6,944,275	\$ 3,064,750	\$ 13,888,550
Construction Inspection	-	579,000	868,500	1,158,000
O&M				
Maintenance Present Value	\$ -	\$ 1,465,133	\$ 2,930,266	\$ 2,930,266
Annual Inspection Pres. Value	-	945,721	1,418,582	1,418,582
<b>Subtotal Cost</b>	<b>\$ -</b>	<b>\$ 9,934,129</b>	<b>\$ 8,282,098</b>	<b>\$ 19,395,398</b>



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#### Potential Market Value Loss of Private Infiltration

Assumed Per Acre Value [1] \$ 50,000,000

Total Parcels 17

Total Acres 12

% Needed for Infiltration 2.60%

#### Parcel and Cost Breakdown

Parcels	Estimated Acres	% Available	% Needed	Value Extracted
3.4	3.5	0%	2.60%	\$ 4,588,235
3.4	3.5	1%	1.60%	\$ 2,823,529
3.4	3.5	2%	0.60%	\$ 1,058,824
3.4	3.5	3%	0.00%	\$ -
3.4	3.5	4%	0.00%	\$ -
3.4	3.5	5%	0.00%	\$ -
Total Cost				\$ 8,470,588

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Capital				
Estimated relative impact	0%	50%	25%	100%
Resulting Cost [2]	\$ -	\$ 4,235,294	\$ 2,117,647	\$ 8,470,588

[1] Based on per Acre value of applicable downtown parcels. Used as estimating tool as actual value of future property unknown

[2] Resulting cost is a conservative estimate that assumes 100% of site size used for infiltrating results in equivalent reduction in property value. This reduction may be significantly less. However, this method of calculation provides a conservative benchmark for the final analysis

#### Total Estimated Costs

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Regional Treatment	\$ 38,921,746	\$ 31,513,230	\$ 24,712,627	\$ 21,150,371
Regional Flow Control and Flood Protection	113,786,433	82,164,732	102,176,433	48,715,899
Private Infiltration	-	9,934,129	8,282,098	19,395,398
Market Loss	-	4,235,294	2,117,647	8,470,588
Total	\$ 152,708,179	\$ 127,847,385	\$ 137,288,805	\$ 97,732,257